ABSTRACT OF THE DISCLOSURE

In a packet transmission system including host apparatuses and a router which transfers a packet from host apparatuses in a first host group to host apparatuses in a second host group, each host apparatus in the first host group inserts in a packet an IP address and a link-layer address of a destination host apparatus in the second host group before transmitting the packet. When the router receives the packet, the router determines an output port connected to at least one host apparatus in the second host group including the destination host apparatus, based on the IP address of the destination host apparatus inserted in the packet, and transmits the received packet from the determined output port.